

# TX-NR901

THX SELECT 7.1-CHANNEL A/V SURROUND HOME NETWORK RECEIVER

**ONKYO**  
IMAGINATIVE SIGHT & SOUND



THX SURROUND EX™



Available in Gold or Black

## Experience Onkyo Emotion

Emotion: Something that used to only be a reaction to what's on the screen or floating through the air in dialogue or music. Onkyo emotion: A reaction before you've even attached the first cable of the TX-NR901. Relief comes from knowing this receiver gives you exclusive sound quality, performance features and high grade parts such as 192 kHz/24-bit DACs, dual 32-bit DSP chips, composite and S-Video to component video upconversion and our exclusive VL technology for a smooth digital signal. The convergence of home theater and home network manifests itself in Onkyo's Net-Tune protocol which makes the TX-NR901 part of the only line of A/V receivers to boast of this ability. Most importantly, you have peace of mind knowing you have chosen a receiver ready to handle the technology and ever increasing demands of the movies and music of today—and tomorrow.

### THX Select Certified

The TX-NR901 boasts the distinction of the exclusive THX Select badge of approval. This gives you assurance that this receiver passed (and often exceeds) THX's numerous requirements in such areas as frequency response, distortion, power output, and stability.

### Dolby Digital EX

Dolby Digital EX creates six full-bandwidth output channels from 5.1-channel sources. This is done using a matrix decoder that derives three surround channels from the two in the original recording. For best results, Dolby Digital EX should be used with movie soundtracks recorded with Dolby Digital Surround EX.

### DTS 96/24

This format offers you the sound quality of the original 96-kHz, 24-bit master in 5.1-channel surround sound for music and movie soundtracks on DVDs encoded in DTS 96/24. Also, you won't have to worry about buying a new DVD player. DTS 96/24 can be carried on DVD-Video, or in the video zone of DVD-Audio. This gives you the convenience of making it playable on all DVD players.

### Color-Coded Inputs and Outputs

Onkyo's commitment to bringing the most user-friendly designed products to market further manifests itself with color-coded inputs and outputs. Now you'll no longer have worries about which wire goes to which input or output. Simply attach the color-coded label to the appropriate wire, attach the cable to the same colored input or output for fast and easy connection.

### VLSC (Vector Linear Shaping Circuitry)

Conventional D/A conversion methods reduce digital pulse noise at the conversion stage but can't remove it completely. Previously only available on Onkyo's high-end components, VLSC (Vector Linear Shaping Circuitry) employs a unique D/A conversion circuit to overcome this problem. Data is converted between the sampling points and these discrete sampling points are joined with analog vectors in real-time to produce a smooth output wave form. The result—a noiseless, smooth analog signal based on the digital source.

### Crossover Adjustment for Bass Management

Previously crossover frequency was fixed at 80 Hz. With Crossover Adjustment, you can set the frequency at 40/60/80/100/120 or 150 Hz depending on your speaker's bass playback ability. This lets you more accurately match the performance characteristics of the subwoofer to your front speakers.

### Component Video Upconversion

Convenience is upgraded with the ability to run just one cable from your receiver to your HDTV with composite/S-Video to component video upconversion. Hook up your video player, CD player, LD player—all your S-Video or composite video out components—to the back of the TX-NR901 and each signal will flow to your compatible TV or projector via one component video cable.

### Net-Tune

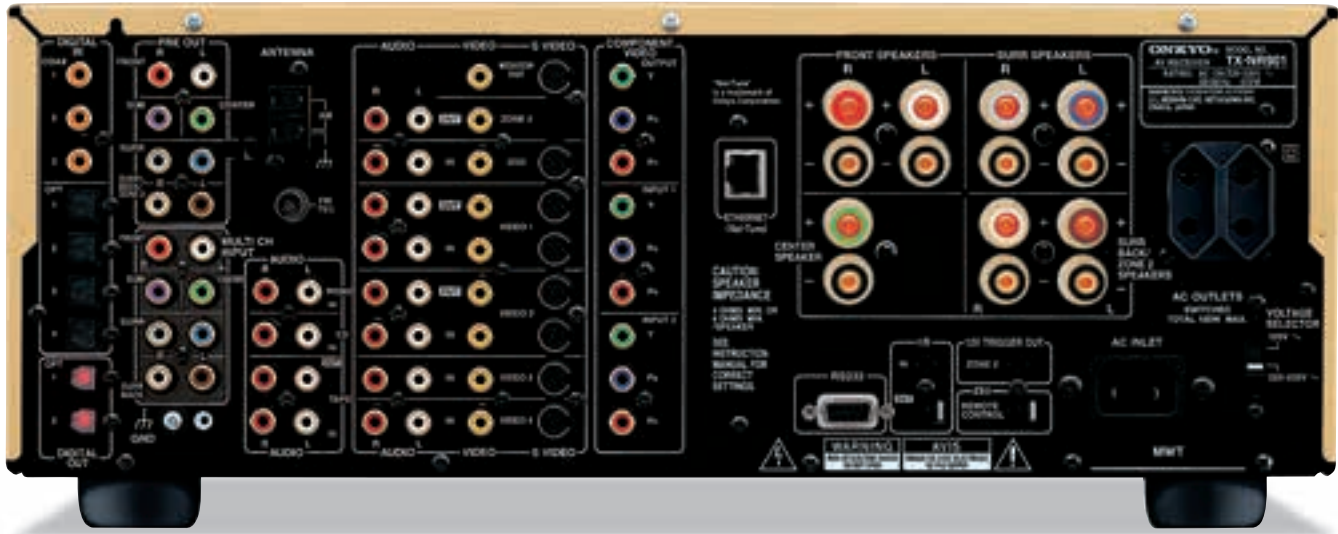
Unprecedented access to radio stations around the world is made possible by Onkyo's exclusive Net-Tune protocol. Hook up your TX-NR901 to a router or hub connected to your broadband modem via a high-speed Ethernet cable. Press the Net-Tune button on the front panel and you're ready to surf the airwaves of cyberspace. You can also add new life to the existing content on your computer by hooking it up to the TX-NR901 via a standard network hub. You'll agree, your MP3s, WAV, WMA files and Internet radio have never sounded so good.



Black model

# TX-NR901

THX SELECT 7.1-CHANNEL A/V SURROUND HOME NETWORK RECEIVER



Appearance tentative

## Amplifier Features

- 180 Watts/Ch, continuous 6 Ω at 1 kHz (JEITA)
- VLSC (Vector Linear Shaping Circuitry) for L/C/R
- Wide Range Amplifier Technology (WRAT)
- Extended Frequency Response (10 Hz to 100 kHz)
- Reduced NFB (Negative Feedback)
- Non-scaling configuration
- Absolute ground plate
- Optimum Gain Volume Circuitry
- 192 kHz/24-bit audio D/A converters (L/C/R/SW/SL/SR)
- 96 kHz/24-bit audio D/A converters (SBL/SBR)
- 96 kHz/24-bit audio A/D converters
- Full bandwidth power to all 7 main channels
- Discrete power amplifier circuitry for all channels
- High-current, low-impedance 6 ohm drive for all channels
- Powered Zone 2 Capability
- Auto-protection circuitry
- Digital upsampling
- High-grade extruded-aluminum heat sink
- Low Frequency Effect (LFE) level control
- Massive isolated transformer
- Thick bus bars
- Tone control (bass, treble) for L/C/R speakers, (bass) for subwoofer
- Y/C mix circuit for monitor out and Zone 2

## Audio/Video Features

- THX Select Certified
- THX Surround EX,
- DTS, DTS-ES Discrete/Matrix 6.1, DTS 96/24, DTS NEO:6
- Dolby Digital, Dolby Digital EX, Dolby Pro Logic II decoding
- 2 component video inputs and 1 output
- 3 Audio & 6 A/V input terminals
- 8 digital inputs (3 coaxial, 5 optical; 3 assignable) and 1 output (Optical)

- 6 S-Video inputs and 3 outputs
- 7.1 Multichannel input for DVD-Audio & Super Audio CD
- 7 sets of heavy-duty color-coded transparent multiway speaker binding posts (dual banana-plug compatible)
- 32-bit dual DSP chips
- 39 DSP modes
- A-Form Listening Mode Memory
- Color-coded multichannel RCA pinjacks
- Color-coded pre out terminals for L/R/C/SL/SR/SB/Subwoofer/Zone 2 L/R
- Composite to S-Video upconversion
- Composite/S-Video to Component Video upconversion
- Crossover adjustment (40/60/80/100/120/150 Hz)
- Direct Mode
- "Easy-set" speaker configuration
- Front panel video, S-Video, Optical inputs
- Pure Audio Mode
- All channel stereo
- Automatic signal detection
- Full input/output cassette and VCR loops
- HD DSP (High Definition DSP)
- Late night mode (high, low, off)
- Phono input
- Rec out selector (Audio & Video)
- Tape & Video Dubbing
- Theater-Dimensional Virtual Surround

## Internet Features

- 30 Internet radio random presets
- Ether (Homenetwork) port
- Net-Tune Protocol Function
- MP3, WAV, WMA decoding

## FM/AM Tuner Features

- 40 FM/AM random presets
- 75-ohm antenna input
- AM loop antenna supplied
- Character input (Tuner presets, input selector)
- FM auto scan tuning

- FM/cable TV simulcast recording/playback
- FM indoor antenna supplied
- FM stereo indicator
- Outstanding selectivity and sensitivity

## Other Performance Features

- IntelliVolume
- On-screen display controller
- RS-232 control port
- 3-mode display dimmer (bright, normal, low)
- 12V Trigger output for Zone 2
- 35-Segment fluorescent dot-matrix display
- Absolute volume display
- Audio mute (remote)
- Battery-free memory backup
- Brushed aluminum front panel
- Headphone jack (standard size)
- Heavy-duty power cord
- Individual input selectors for each source
- IR input terminal
- Precision digital speed-sensitive volume control
- RIAA Phono Equalizer
- Separate PC (printed circuit) boards for audio and video sources
- Sleep timer via remote
- Powerful and elegant aluminum-faced remote control with scroll wheel and LCD display

Powerful and elegant aluminum-faced remote



## SPECIFICATIONS

### AMPLIFIER SECTION

<b>Power Output</b>	
Front L/R.....	180 W + 180 W (6 Ω, 1 kHz, JEITA)
Center.....	180 W (6 Ω, 1 kHz, JEITA)
Surround L/R.....	180 W + 180 W (6 Ω, 1 kHz, JEITA)
Surround Back L/R.....	180 W + 180 W (6 Ω, 1 kHz, JEITA)
<b>Dynamic Power</b> .....	
280 W + 280 W (3 Ω, Front)	
220 W + 220 W (4 Ω, Front)	
140 W + 140 W (8 Ω, Front)	
<b>THD (Total Harmonic Distortion)</b> .....	
0.08 % (Rated Power)	
<b>Damping Factor</b> .....	
60 (Front, 1 kHz, 8 Ω)	
<b>Input Sensitivity and Impedance</b>	
Line.....	200 mV/50 kΩ (CD, DVD, VIDEO 1-5)
Phono.....	2.5 mV/50 kΩ (MM)
Multichannel.....	200 mV/50 kΩ (DVD, except for Subwoofer)
	36 mV/50 kΩ (DVD, Subwoofer)
Digital input Coaxial.....	0.5 Vp-p/75 Ω
<b>Output Level and Impedance</b>	
Rec out.....	200 mV/470 Ω (Tape, Video 1-2)
Line out.....	100 mV/470 Ω (Zone 2)
Pre out.....	1.0 V/470 Ω
<b>Frequency Response</b> .....	
10 Hz-100 kHz/+1 dB, -3 dB (Direct mode)	
<b>Tone Control</b> .....	
±10 dB, 50 Hz (BASS)	
±10 dB, 20 kHz (TREBLE)	
<b>Signal-to-Noise Ratio</b> .....	
110 dB (Line in, IHF-A), 80 dB (Phono in, IHF-A)	
<b>Speaker Impedance</b> .....	
6 Ω-16 Ω	

### VIDEO SECTION

<b>Input Sensitivity/Output Level and Impedance</b>	
Video.....	1.0 Vp-p/75 Ω (Component and S-Video Y)
	0.7 Vp-p/75 Ω (Component Pb/Cb, Pr/Cr)
	0.28 Vp-p/75 Ω (S-Video C)
	1.0 Vp-p/75 Ω (Composite)
<b>Component Video Frequency Response</b> .....	
DC-50 MHz	

### TUNER SECTION

<b>[FM]</b>	
<b>Tuning Frequency Range</b> .....	
87.50 MHz-108.00 MHz	
<b>Usable Sensitivity</b>	
FM Stereo.....	17.2 dBf, 2.0 μV (75 Ω IHF)
FM Mono.....	11.2 dBf, 1.0 μV (75 Ω IHF)
<b>Signal-to-Noise Ratio</b>	
FM Stereo.....	70 dB (IHF-A)
FM Mono.....	76 dB (IHF-A)
<b>Total Harmonic Distortion</b>	
FM Stereo.....	0.3 %
FM Mono.....	0.2 %
<b>FM Stereo Separation</b> .....	
45 dB at 1 kHz, 30 dB at 100 Hz-10 kHz	
<b>[AM]</b>	
<b>Tuning Frequency Range</b> .....	
522 kHz-1.611 kHz, 530 kHz-1.710 kHz	
<b>Usable Sensitivity</b>	
AM.....	30 μV
<b>Signal-to-Noise Ratio</b>	
AM.....	40 dB
<b>Total Harmonic Distortion</b>	
AM.....	0.7 %

### GENERAL

<b>Power Supply</b> .....	AC 120/220-230 V, 50/60 Hz
<b>Power Consumption</b> .....	670 W
<b>Stand-by Power Consumption</b> .....	2 W
<b>Dimensions (W x H x D)</b> .....	435 x 175 x 459 mm
<b>Weight</b> .....	19.2 kg

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